CLAIMS

What is claimed is:

1. A method of fabricating a heat and effusion resistant fuel tank comprising the steps of;

combining a thermoplastic and amorphous silica into a compound,

heating the compound, and

forming a hollow fuel tank with a filler opening with the compound.

2. A method as set forth in claim 1 wherein the combining is further defined as mixing granules of the thermoplastic with a powder of amorphous silica.

3. A method as set forth in claim 2 including heating the compound to a viscous form.

4. A method as set forth in claim 3 further defined as heating the compound to a temperature of between 200 and 500 degrees Fahrenheit.

5. A method as set forth in claim 4 further defined as heating the thermoplastic to a viscous condition and then adding the amorphous silica powder.

6. A method as set forth in claim 5 further defined as compounding the thermoplastic and amorphous silica in an extruder.

7. A method as set forth in claim 6 including extruding the compound into a strand and dividing the strand into pellets of the homogenous compound.

8. A method as set forth in claim 7 including heating the pellets of the compound into a viscous condition and molding the fuel tank.

9. A method as set forth in claim 8 wherein the amorphous silica is in the range of 10% to 30% by volume of the compound.

10. A method of fabricating a heat and effusion resistant fuel tank comprising the steps of;

heating and mixing pellets of a thermoplastic with a powder of amorphous silica into a viscous compound, and

forming a hollow fuel tank with a filler opening with the compound.

11. A method of fabricating an automotive component comprising the steps of;

combining a thermoplastic and amorphous silica into a compound,

heating the compound, and

forming a component with the compound.

12. A method of fabricating a heat and effusion resistant fuel tank comprising the steps of;

adding granules of a thermoplastic into an extruder,

heating the granules of the thermoplastic in the extruder to reach a viscous condition,

adding an amorphous silica powder into the viscous thermoplastic to form a homogenous compound,

extruding the compound through the extruder to form a strand of the compound, cooling the strand into a solid,

chopping the strand into pellets;

pouring the pellets into a barrel of a molding machine;

heating the barrel of the molding machine to turn the pellets into a viscous paste; and

injecting the viscous paste into a mold to form a hollow fuel tank

13. A heat and effusion resistant fuel tank comprising;

a hollow body,

a filler opening for receiving fuel,

said body and said neck consisting of a homogeneous thermoplastic filled with amorphous silica.

14. A heat and effusion resistant automotive component comprising of a homogeneous thermoplastic filled with amorphous silica.